

Appl. No.: 09/869,534
Amdt. dated 03/20/2006
Reply to Office action of December 19, 2005

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REMARKS

In the final Office Action dated December 19, 2005, Claims 1-5, 13-16, and 20 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,337,073 to Tsunoda et al. ("Tsunoda") in view of Japanese Publication No. 10096890 to Masahiro ("Masahiro") and further in view of U.S. Patent No. 4,997,263 to Cohen et al. ("Cohen"). Dependent Claims 6 and 7 were rejected under 35 U.S.C. § 103(a) as obvious over Tsunoda in view of Masahiro and Cohen, and further in view of U.S. Patent No. 6,078,302 to Suzuki ("Suzuki"). Dependent Claims 8 and 9 were rejected under 35 U.S.C. § 103(a) as obvious over Tsunoda in view of Masahiro, Cohen, and Suzuki, and further in view of U.S. Publication No. 2001/0024967 to Bauer ("Bauer"). Dependent Claims 10-12 and 22 were rejected as obvious over Tsunoda in view of Masahiro, Cohen, and Bauer. Dependent Claims 23 and 24 were rejected under 35 U.S.C. § 103(a) as obvious over Tsudona in view of Masahiro, Cohen, and Bauer, and further in view of U.S. Patent No. 6,426,736 to Ishihara et al. ("Ishihara"). In view of the following remarks, Applicants respectfully request reconsideration of the present application and allowance of the previously presented set of claims.

Summary of Interview of March 10, 2006

Applicants' representative would like to thank the Examiner for the recent interview conducted on March 10, 2006. During the interview, Applicants pointed out that none of the references teach or suggest, alone or in combination, a light detector positioned adjacent to and facing the reverse face of a display to receive a sum of light from the illuminator and light incident on the display, as recited by the independent claims of the present application. As outlined by the Official Action, the Examiner asserted that the combination of Masahiro and Cohen teaches such a light detector. The Examiner indicated that Cohen is cited specifically for teaching a light detector positioned to sense light incident on the display. Applicants pointed out that, while Cohen does teach a photo detector for sensing ambient light, Cohen does not teach or suggest that the photo detector senses light incident on the display. Although the Examiner agreed during the interview that Cohen does not teach or suggest a light detector for sensing the light incident on the display, the Examiner submitted that Official Notice could be taken of a light detector positioned facing a reverse face of a display to sense light incident on a display,

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and that, as such, the obviousness rejection would not be withdrawn. Applicants asserted that it was improper to take Official Notice of a light detector positioned facing a reverse face of the display to receive light incident on the display, since such is not common knowledge in the art. Furthermore, Applicants argued that, even if Official Notice was taken of a light detector for sensing light incident on the display, there would be no motivation or suggestion to combine such knowledge with the teachings of Masahiro to produce the claimed invention. In this regard, such an obviousness rejection would improperly involve the hindsight reconstruction of the claimed invention without the requisite motivation or suggestion to make such a combination.

For the foregoing as well as the reasons stated below, Applicants continue to assert that the claimed invention is patentable over the cited references. The following remarks are further representative of the arguments made during the interview on behalf of the Applicants.

The Cohen Reference

In the final Office Action, Cohen was cited for teaching a light detector positioned to receive light incident on the display. Cohen describes a system where some portion of the ambient light and the light from an illuminator 16/46 are reflected to provide back illumination for a LCD 12/36. Cohen describes a photo detector 18/48 that is used to detect the level of ambient light and adjust the contrast ratio of the display 12/36. The photo detector 18/48 adjusts the contrast ratio of the display by controlling the illuminator 16/46 based on the level of the ambient light. See Cohen, FIGS. 3 and 4. Although Cohen states that the photo detector 48 is mounted on the pilot's helmet so as to sense ambient light, Cohen does not suggest that the photo detector could be positioned to sense the actual ambient light incident on the display. In fact, in FIG. 3, Cohen teaches that the ambient light received by the photo detector 18 takes a different path or comes from a different location than the ambient light received by the reflecting optics 10 and ultimately reflected to the LCD 12. Therefore, Cohen fails to teach or suggest a light detector positioned to receive light incident on the display, as recited by the independent claims of the present application. During the interview, Examiner agreed that Cohen fails to teach a light detector positioned to receive light incident on the display. Since none of the other cited references teach or suggest a light detector positioned to receive light incident on the display and,

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in fact, since none of the other references were cited for such a proposition, the rejections of Claims 1-16, 20, and 22-24, all of which depend on the Cohen reference, are overcome.

Notably, Cohen also fails to teach or suggest a light detector positioned adjacent to and facing the reverse face of a display, or a light detector for sensing light received from the illuminator, as further recited by the independent claims of the present invention. In this regard, Cohen is essentially no different from the teachings of the other cited references in that it describes a photo detector used to detect ambient light conditions such that an illuminator can be controlled based on the ambient light conditions. None of these references, alone or in combination, teach or suggest a light detector positioned to receive a light level that represents a sum of light received from the illuminator and light incident on the display, as recited by the independent claims of the present application.

The Combination of Tsunoda, Masahiro and Cohen

In addition to the fact that Cohen does not teach or suggest a light detector positioned to receive light incident on the display, there is no suggestion or motivation in the references to combine the teachings of Tsunoda, Masahiro, and Cohen to produce the claimed invention. In fact, Cohen may actually teach against positioning a light detector adjacent to and facing a reverse face of the display. Specifically, FIG. 4 of Cohen depicts how the LCD 36 is illuminated by reflecting ambient light and light from an illuminator 46 to backlight the LCD 36. Based on this figure and the description in the specification, it appears as though it would be impractical to place a light sensor adjacent to and facing the reverse face of LCD 36 in a position where it could receive light incident on the display. Such a design would at least partially block light intended to be incident on the display, thereby creating a dark spot on the display. Thus, Cohen teaches against a light detector positioned adjacent to and facing a reverse face of the display. As such, the references do not provide the requisite motivation to combine Cohen with Masahiro and Tsunoda. Therefore, for this additional reason, the pending rejections of the claims (all of which rely upon the combination of Tsunoda, Masahiro, and Cohen) are overcome.

The Combination of Tsunoda and Masahiro

Furthermore, as discussed in the prior interview of November 9, 2005, there is no suggestion or motivation in the references to combine the teachings of Tsunoda and Masahiro.

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Specifically, Tsunoda teaches away from equipment where the light sensitive element senses ambient light only at a location merely close to the display rather than at the display. *See* Tsunoda, col. 1, lines 15-44; and Fig 1. Masahiro describes an optical sensor 9 that senses external light **B** through plastic cover 4 in the opening of the extraneous light taking-in aperture **2b**, which is at a location separate and distinct from the LCD panel 3 and the display window **2a**. *See* Masahiro Figs. 1 and 6. Thus, Tsunoda specifically teaches away from Masahiro, and, as such, neither the references nor the knowledge of a person skilled in the art provides the requisite motivation to combine Masahiro with Tsunoda, such that the pending rejections of the claims (all of which rely upon the combination of Tsunoda and Masahiro) are overcome for this further reason.

The Prospect of the Examiner Taking Official Notice

During the interview of March 10th, the Examiner suggested that Official Notice may be taken of a light detector being positioned facing the reverse face of a display in order to sense light incident on the display. Applicants submit that Official Notice should not be taken of such a feature since such a feature would not have been common knowledge to an ordinary person skilled in the art and is not capable of instant and unquestionable demonstration as being well-known. *See* MPEP § 2144.03. Applicants further assert that taking Official Notice of such knowledge and combining it with the cited references to produce the claimed invention would amount to a rejection based upon impermissible hindsight. As such, to the extent that the Examiner is considering invoking Official Notice, Applicants traverse such Official Notice and request that a reference be provided, instead, that evidences the feature in question and is capable of being properly combined with the other cited references.

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BEST AVAILABLE COPY**CONCLUSION**

In view of the foregoing remarks presented above, it is respectfully submitted that all of the claims of the present application are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,




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Sarah B. Simmons

March 20, 2006
Date

CLT01/4800647v1